

Title (en)  
Non-contacting mechanical end face seal

Title (de)  
Berührungslose Gleitringdichtung

Title (fr)  
Garniture mécanique d'étanchéité sans contact.

Publication  
**EP 0840043 A2 19980506 (EN)**

Application  
**EP 97308634 A 19971029**

Priority  
• US 74301296 A 19961101  
• US 88925297 A 19970710

Abstract (en)  
A mechanical end face seal of the non-contacting type includes a primary seal ring (38) having a back section (50), a seal face section (46) and a middle section (56) between the seal face (46) and the back sections (50), each primary ring section having a radial dimension, defined as the difference between the outermost radius and the innermost radius of said respective section, the radial dimension of the back section (50) being in a ratio relative to said middle section (56) of between about 1.5 to about 3.1, and more preferably of between about 1.9 to about 2.5, and most preferably about 2.0 to about 2.3. Additionally, the mating seal ring (48) includes grooves (32) extending from one seal ring circumference toward the other and terminating adjacent a dam at a radius  $R_g$ , it is beneficial to have the boundary between the grooves and the dam have a radius  $R_g$  slightly larger or smaller, within about 10%, than the outer radius of the middle section (56).

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**F16J 15/34**

IPC 8 full level  
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CPC (source: EP KR US)  
**F16J 15/3452** (2013.01 - KR); **F16J 15/3464** (2013.01 - KR); **F16J 15/3468** (2013.01 - EP US); **F16J 15/3472** (2013.01 - EP US);  
**F16J 15/3484** (2013.01 - EP US); **Y10S 277/908** (2013.01 - KR)

Citation (applicant)  
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CA 2220162 A1 19980501; CA 2220162 C 20060207; DE 69721936 D1 20030618; DE 69721936 T2 20040311; ES 2198536 T3 20040201;  
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